

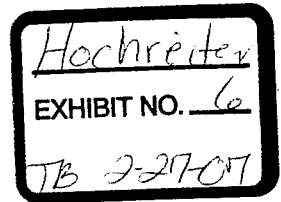
EXHIBIT “D”

CYTEC

ORIGINAL
(Red)

CYTEC INDUSTRIES INC.
Five Garret Mountain Plaza
West Paterson, NJ 07424
Tel: (201) 357-3100

April 28, 1994



Certified Mail - Return Receipt Requested

Ms. Joan Martin-Banks
U.S. Environmental Protection Agency
PRP Search Section (3HW11)
841 Chestnut Building, 9th Floor
Philadelphia, PA 19107

Re: Boarhead Farms Site, Bridgeton Township, Bucks County, PA

Dear Ms. Martin-Banks:

This letter is to acknowledge receipt of and respond to your March 11, 1994 letter to M.R. Tribble, Esq. at American Cyanamid Company. As this file was recently transferred to me by Ms. Tribble, I contacted your office for an extension of time in which to respond. This extension was granted by Elizabeth Sanders at Techlaw. Pursuant to your request, Cytec Industries Inc. is providing responses to your questions to the best of our ability and will be supplementing these responses as additional information is collected. American Cyanamid Company recently spun-off its global chemical business as a separate public company, Cytec Industries Inc., on December 17, 1994. As a result, this Site has been transferred to Cytec for handling.

Pursuant to your letter, attached are each of the questions asked with separate narrative responses. Where Cytec personnel is still collecting information, it is so noted. If you have any additional questions or comments, please call me at (201) 357-3136. Also, for your information, please direct all future correspondence regarding this matter to me at :

Cytec Industries Inc.
5 Garret Mountain Plaza
West Paterson, New Jersey 07424
[201] 357-3136 - telephone
[201] 357-3058 - fax

Very truly yours,

Linda I. Doucette-Ashman
Legal Department *LSJ*

LJDA:as:banks

cc: R. B. Tabakin - WA
w/attachments

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RESPONSES

Question 1.

Describe the 4NOX and DPA processes in detail and identify the nature of each substance used in these processes, including the chemical content, characteristics, and physical state (i.e., liquid, solid). Provide chemical analyses and Material Safety Data Sheets for each of these substances.

Response 1.

Attached please find a description of the diphenylamine (DPA) process and a Material Safety Data Sheet. (see Attachment #1). A description and other documentation relating to the 4NOX process will be forwarded to you under separate cover.

Question 2.

Describe in detail the processes that used nitric and sulfuric acid during the period 1969 through 1977. State whether the spent acids contained any other substances, including, but not limited to, heavy metals.

Response 2.

The process that used nitric and sulfuric acid at the Bound Brook plant during the 1969-1977 period was primarily the manufacture of nitrobenzene. A detailed process description and Material Safety Data Sheet are attached. (See Attachment #2). The other process that used nitric and sulfuric acid is the 4NOX process. As stated above, this information will be forwarded to you under separate cover.

Question 3.

The documents provided with your July 2, 1993 response identify the following buildings as locations for which waste was collected by Jonas, Incorporated (also known as Jonas, Inc., and/or Jonas Waste Removal, hereinafter collectively referred to as "Jonas"): 4, 10, 11, 38, 39, 40, 42, 43, 51, 63, 76, 81, 83, 85, 86, 101, 102, 103, 114, 688, and 872. Describe the operations conducted at these locations during the period 1969 through 1977. Provide Material Safety Data Sheets for all of the substances used in those buildings and provide complete chemical names, common names, and CAS Numbers of all the wastes and by-products produced.

Response 3.

The following is a general description of the operations conducted at the following Bound Brook buildings during the period of 1969-1977. Please note that we are still confirming and seeking additional information for this response. This information will be forwarded to you under separate cover.

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Building #4 - Research;
 Building #10 - Administrative, Research and cafeteria;
 Building #11 - Analytical Labs;
 Building #38 - Warehouse and Dyes Blending Shop;
 Building #39 - Research Pilot Plant;
 Building #40 - Administration;
 Building #42 - Dyes Manufacturing;
 Building #43 - unknown;
 Building #51 - Research Pilot Plant;
 Building #63 - unknown;
 Building #76 - Quality Control Laboratory;
 Building #81 - Pharmaceutical Manufacturing;
 Building #83 - unknown;
 Building #85 - Elastomers and Pre-polymer Manufacturing;
 Building #86 - Pigments;
 Building #101 - Pharmaceutical Manufacturing;
 Building #102 - unknown;
 Building #114 - Rubber Chemicals;
 Building #688 - no such building at the Bound Brook plant;
 Building #872 - no such building at the Bound Brook plant;

§ 3.1.1.1

Question 4.

Your July 2, 1993, response identifies several of the waste streams generated by your bound brook facility during the 1969 through 1977 time period. However, the documentation accompanying the response indicates that Jonas hauled many wastes from your facility that you did not discuss in your response. Those wastes include:

sodium dichromate sludge
 waste still bottoms
 distillation still pots
 poisonous flammable solids
 waste solvents
 methotrexate acetone
 methotrexate crude carbon
 methotrexate semihyflo HCC cake
 BAA sludge
 MNB recovery sludge
 non-regulated solids and sludges
 type "A" organic pigments
 waste jade green sludge
 methyl PNA sludge
 aromatic polyuria sludge
 dibrom waste sludge
 dibrom ADQSP (intermediate)
 cyanaprene waste

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cyanacryl waste
DIAC press cake wet with isopropanol
DIAC press cake wet with toluene
amoxapine press cake wet with IPA
hetrazine press cake wet with acetone
scrap dyes
loxapine magnesol carbon
scrap paint chemicals

For each substance listed above, identify:

- a. the nature of each such substance of waste, including chemical content, characteristics and physical state (i.e., liquid, solid);
- b. the annual quantity of each such substance or waste generated by your facility during the period 1969 through 1977; and
- c. the manufacturing processes in which each such substance or waste was generated.

Response 4.

Cytec is still in the process of reviewing each of the items that you identified in this question. To date, we have been able to identify the following:

- a] Sodium dichromate - This material was a by-product of the pigments process by the OCD Division. See attached MSDS (Attachment #3).
- b] Methotrexate® - This product is a bulk pharmaceutical. See attached MSDS (Attachment #3).
- c] BAA (butylacetanilide) - Material manufactured by OCD Division at Bound Brook. See attached process description. (Attachment #3).
- d] Cyanaprene® - Product manufactured by the OCD Division at the Bound Brook plant. See attached MSDS. (Attachment #3).
- e] Cyanacryl® - Product manufactured by the OCD Division at the Bound Brook plant. See attached MSDS. (Attachment #3).
- f] DIAC (diacetone acrylamide) - This material was manufactured by the Pharmaceutical 2 Division at the Bound Brook plant. See attached process description (Attachment #3).
- g] Amoxapine® - This product is a bulk pharmaceutical. See attached MSDS (Attachment #3).

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- h] Hetrazan® - This product is a bulk pharmaceutical. See attached MSDS (Attachment #3).
- i] Loxapine® - This product is a bulk pharmaceutical. See attached MSDS (Attachment #3).

Question 5.

Your response states that "many waste streams were managed in on-site disposal and treatment facilities." For the period 1969 through 1977, identify all wastes that were transported off-site for treatment, storage, or disposal; the annual quantity of each waste that was transported off-site; the transporters utilized; and the disposal locations.

Response 5.

I am attaching a complete copy of the Eckhardt Report for the Bound Brook plant in response to this question. We are still investigating this question and any and all information regarding this question that is discovered will be provided to you under separate cover. (See Attachment #4).

Questions 6.

Your response states "[your] Eckhardt Report also indicates that the Bound Brook plant also used Advanced Environmental Technology Corporation (AETC), Morris Plains, N.J. during the period of 1976-1979. Cyanamid does not have any documentation regarding use of AETC."

- a. provide a complete, unabridged copy of all portions of the Eckhardt Report that discuss your company's use of AETC; and
- b. describe in detail the investigation undertaken to locate documentation regarding your company's use of AETC.

Response 6.

- a. See Attachment #4. Cytec is still investigating this question and any and all information regarding this question that is discovered will be provided to you under separate cover.

Question 7.

State whether your company operated under a document retention policy at any time relevant hereto, pursuant to which your company destroyed or otherwise disposed of any documents relating to the Site. If so, state who established the document retention policy, what is said policy, and describe the actions taken by your company to comply with said policy.

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In the deposition of an American Cyanamid Company employee, Robert B. Bailey, relevant excerpts attached, he set forth the record retention policy for the Bound Brook Purchasing Department as follows:

general file of "purchase order files" was 2 years.
(See Attachment #5).

These responses are hereby submitted by R. B. Tabakin, Manager, CERCLA
Regulatory Service.

R. B. Tabakin
R. B. Tabakin

responses